REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of November 1, 2005 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due.

In paragraphs 6-18 of the Office Action, Claims 1-9, 11-15, and 17-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,999,525 to Krishnaswamy, *et al.* (Krishnaswamy). In paragraphs 19-22 of the Office Action, Claims 10 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnaswamy.

In response to the Office Action, Applicants have amended claims 1, 2, 3, 4, 5, 6, 7, 8, 13 and 14. Specifically, Applicants have amended claims 1, 3, 5, and 7 to clarify that the telecommunication service attributes and the service attribute information can be contained within a Java applications programming interface for integrated networks JAIN compliant service component executing within a Java service logic execution environment (JSLEE). Notably, the JAIN compliant service component can include the necessary functionality for updating telecommunication service attribute information without accessing an external database or external component for accessing such an external database, as supported by page 7, line 6 to line 20, page 7, lines 11-13, page 11, lines 11-14, and throughout the specification. Applicants have also amended claims 3 and 7 to clarify that the JAIN compliant service component is registered with a JSLEE for receiving a JSLEE compatible event and for directly sending and receiving protocol stack events to a protocol layer without accessing an external database for processing the event as supported by page 13, lines 8-20, by page 14, lines 10-12, and throughout the specification. Claims 2, 4, 6, and 8 have been amended to clarify that the service component follows JAIN

specifications for providing JAIN compliance, as supported by page 12, lines 20-24. No new matter results from these claim amendments.

Prior to addressing the rejections on the art, a brief review of the Applicants' invention is in order. The Applicants' claimed and disclosed subject matter teaches a method and a system for providing a Web-based interface for directly changing service attributes and corresponding service attribute information. The service attributes and the telecommunication service attribute information can be contained within a JAIN compliant service component executing within a Java service logic execution environment (JSLEE). In particular, the invention can provide this functionality without the aid of external applications or services. The JAIN compliant service component can be configured to receive events generated by the Web-based interface via the JSLEE. Thus, upon receiving such an event, the JAIN compliant service component can update telecommunication service attribute information existing within the JAIN compliant service component in a manner consistent with the received event. Accordingly, the JAIN compliant service component can include the necessary functionality for updating any service attribute information contained therein and need not access an external database or an external component for accessing such an external database.

Turning now to the rejections on the art, Krishnaswamy teaches a system and method for interconnecting a communication network including telephony capability with the internet. Krishnaswamy teaches how information can be routed across a switched network for allowing participants to communicate in teleconferencing applications which support telephone calls, data, and other multimedia such as voice and video. Users can share data and manage more aspects of a network and control network activities from a central site.

Referring to claims 1, 3, 5, and 7, Applicants' claims include limitations of:

* providing a plurality of selections embodied in a hypermedia document, said plurality of selections corresponding to a telecommunication service attribute contained within a JAIN compliant service component executing within a JSLEE

* at an event handling component, routing said event to said JAIN compliant service component via said JSLEE for directly sending and receiving protocol stack events to a protocol layer without accessing an external database for processing said event

* said protocol layer including said one or more protocol stacks configured by said JSLEE for directly interacting with said JAIN compliant service component thereby separating service-based logic from network-based logic

* executing said service component using a configuration and loading parameter provided by said event of said user specified selection thereby bypassing synchronization management of service attributes stored in an external database to said JSLEE server

Krishnaswamy fails to explicitly, inherently, or implicitly teach 1) changing a telecommunications service attribute using a JAIN compliant service component executing within a Java service logic execution environment, 2) directly sending and receiving protocol stack events to a protocol layer without accessing an external database using a JAIN compliant service component, and 3) separating service-based logic from network-based logic.

In Applicants' final office action, Applicants' amended Claim 3 to include limitations of performing an update step without accessing a database external to a service component. Examiner accurately noted this claim limitation on page 6 paragraph 10 of the final office action. However, the examiner has cited a paragraph from Krishnaswamy which contradicts a rejection of said claim limitation. Krishnaswamy recites: *"a three-tier service creation environment for services the provider sells. Services are deployed and updated through the Marketable Service Gateway 2128"* (column 27, lines 32-35). As is known in the art, a three-tier service requires external service support which includes accessing a database. Krishnaswamy discloses in Figure 21 at reference sign 2128, the Marketable Service Gateway connected to the MCI Networks via the Distributed Processing Environment. Krishnaswamy discloses in Figure 16, the MCI Network connected to the Database Engine (on the right side of the figure) thereby demonstrating that a three-tier service accesses an external database.

A three-tier service creation environment includes a database manager 2138 as properly noted in Krishnaswamy, Figure 21. Further examination of Figure 21 and the patent specification reveals that the Marketable Service Gateway 2128 is clearly separate from the Data Management 2138. Further, Figure 16 clearly shows that the Database Engine (on the right side of the figure) is directly coupled to the MCI network as an external database. In contrast, Applicant performs an updating step <u>without</u> accessing a database <u>external</u> to the service component. Understandably, Applicants' invention implements a JAIN specification for telecommunication service components for the purpose of separating service layer logic from network-based logic. The JAIN implementation expands across a protocol layer, a signaling layer, and a service layer for providing direct connectivity management and call control thereby bypassing synchronization management of

service attributes stored in an external database. In contrast, the call processing engine and the MCI intelligent network of Krishnaswamy shown in Figure 16 are not consolidated into one service component. The JAIN implementation allows a service component to directly update telecommunication service attributes and service attribute information without accessing an external database by sending protocol stack events directly to the protocol layer. In fact, the service attributes are updated directly within the service components thereby obviating the need to access an external database.

Applicants have previously disclosed accessing an external database as prior art similar to the database access method presented in Krishnaswamy, in Applicants' Figure 1 and Applicants' background section reproduced herein:

"For example, once the user has requested a change to a service attribute, a hypermedia document 210 can access a database management component 116 to update the service attribute information in a service attribute database 114. Though the service components can contain service attribute information, the service component must access the service attribute information database 114 and synchronize its service attribute information with the updated information contained within the service attribute database 114. This synchronization process between the service component 112 and the service attribute database 114 often can require another separate and distinct component or service such as synchronization component 118. Notably, the database management component 116, the synchronization component 118, as well as the service attributes database 114, each operate external to the JSLEE 108." (Specification p. 5, lines 23-29 to p. 6, lines 1-6).

Applicants are not claiming Krishnaswamy's method or any other method of accessing an external database. In fact, Applicants are presenting a method of

accessing an external database within the background section for describing systems that do access an external database. In fact, Krishnaswamy is teaching away from Applicants' invention. Applicants have already clearly disclosed that the invention avoids accessing an external database.

Applicants respectively point out that the database management approach is not used within Applicants' invention and should not be interpreted by the Examiner to read on Applicants' invention. Krishnaswamy clearly depends on accessing an external database as noted throughout the patent. In particular, the database management 2138 of Figure 21 is "*...where all customer and service profile data is deployed. Data is cached on Service Engines that are external to the management gateway service*" (Krishnaswamy, col. 27, lines 54-56). In addition, "*When a SLEE is started on a Service Engine 2134, it retrieves its configuration from the database server 2182. The configuration instructs the SLEE to execute a list of services. The software for these services is part of the service templates deployed on the database servers*" (Krishnaswamy Col 37 lines 9-18). To further note, "*During service 2200 execution, profile data is used to determine the behavior of service features 2202. Depending on service performance requirements, some or all of the profile data needed by a service may be cached on a service engine 2134 from the ISP 2100 database server*". As another example, "*Once all information has arrived, an event is generated to any service which has subscribed to this kind of event, and services may then operate on the data in the Context Database. Such operations may include extracting the data from the Context Database and delivering it to billing systems of fraud analysts systems*" (Krishnaswamy Col 37 lines 9-18). From these passages, it is clear that Krishnaswamy accesses an external database for handling and updating a telecommunications service attribute. Whereas Krishnaswamy is directed to accessing external databases for updating telecommunication service attributes,

Applicants' invention is directed to updating service attributes directly on the service component that provide the telecommunications service.

In paragraph 5 of the Office Action, the Examiner has rejected claims 10 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Krishnaswamy. However, Krishnaswamy is silent with regards to a JAIN compliant service component, a JSLEE, or with JAIN compliant components that execute within a JSLEE. Additionally, Krishnaswamy provides no teachings or suggestions regarding any environment functionally or structurally equivalent to a JSLEE environment. Krishnaswamy does not contemplate a component internal to a JSLEE used to interface with components outside the JSLEE via an Internet connection. Krishnaswamy fails to contemplate a service component that can update a telecommunications service attribute without accessing an external database. Krishnaswamy is directed to using an external database to update service attribute information corresponding to a subscriber's service. The JAIN compliant service component can update telecommunication service attributes without accessing a database and is novel. No equivalent component previously existed for providing a web-based service for directly changing service attributes and corresponding service attribute information through a hypermedia document.

As such, Krishnaswamy is directed toward a different problem space, a different architecture, and a different infrastructure than the present invention. That is, Krishnaswamy provides no teachings regarding a JSLEE component capable of updating subscriber telecommunication attributes (so that the behavior of the telecommunication service is changed in accordance with the updated attributes whenever the subscriber accesses the telecommunication service through a phone).

Because Krishnaswamy fails to explicitly, implicitly, or inherently teach each claimed limitation, the 35 U.S.C. § 102(b) rejections and the 35 U.S.C. § 103(a)

rejections to claims 1-19 should be withdrawn, which action is respectfully requested.

CONCLUSION

In light of the above, Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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